

EN ISO 9905

**Standart**

**SCP**

Chemical Process Pumps

EN 22858 / ISO 2858



ATEX



SCP 01 02-11 EN

## Liquids Handled

SCP Type pumps are suitable for clean or slightly contaminated liquids with low viscosity.

## Technical Data

|                               |                              |
|-------------------------------|------------------------------|
| <b>Suction Flange</b>         | DN 50 .... DN 300 mm         |
| <b>Discharge Flange</b>       | DN 32 .... DN 250 mm         |
| <b>Capacity</b>               | up to 1700 m <sup>3</sup> /h |
| <b>Head</b>                   | up to 140 m                  |
| <b>Speed</b>                  | up to 2900 rpm               |
| <b>Operating Temperature</b>  | -20 °C' - +175 °C*           |
| <b>Casing Pressure (Pmax)</b> | 16 bar (25 bar) *            |

(Pmax: Suction pressure + Shutoff Head)

(\*) The material of pumps differs according to the type of pumped liquid, operating temperature and pressure. Contact our company for detailed information.

## Fields of Application

- Chemical and Petrochemical Industry
- Refineries and Loading Plants
- Paper and Cellulose Industry
- Iron and Steel Industry
- Food and Beverage Industry
- Cooling and Heating Plants
- Water Treatment Plants
- Power Plants

## Design Features

- Horizontal, single stage, radially split volute casing type, end suction centrifugal pumps with closed or semi-open impeller.
- In addition to 26 basic sizes conforming with EN 22858 / ISO 2858, there are 10 additional sizes. Dimensions of additional sizes may differ from other suppliers.

- Suction and discharge flanges conforming to ISO 7005 / PN16.
- Due to the back-pull-out design, the complete bearing assembly including impeller and shaft can be dismantled without removing the volute casing from the piping system.
- All impellers are dynamically balanced according to ISO 1940 class 6.3.
- Axial thrust is balanced in closed impeller by wear ring / balance hole system and in semi-open impeller by back ribs.
- Heavy duty shaft not in contact with the medium handled (dry shaft).
- For casing sealing, confined gaskets are used to prevent blow-out under pressure.

## Bearings

- Pump shaft is supported by oil lubricated, long-life, heavy duty rolling bearings. On the coupling side two angular contact ball bearings and on impeller side cylindrical roller bearing or ball bearing is used.
- Metal thrower, in addition to oil seals, is used to prevent leakage into the bearings.
- High capacity oil reservoir decreases oil temperature thus increases bearing life.
- Cooling chamber in the bearing bracket for oil cooling.
- Cast iron bearing bracket provides a solid support for the pump shaft and increases bearing life.

## Shaft Sealing

- Depending on request or requirement, pumps with soft packing or single, double and cartridge type mechanical seals can be supplied.
- External seal cooling system may be used if required.

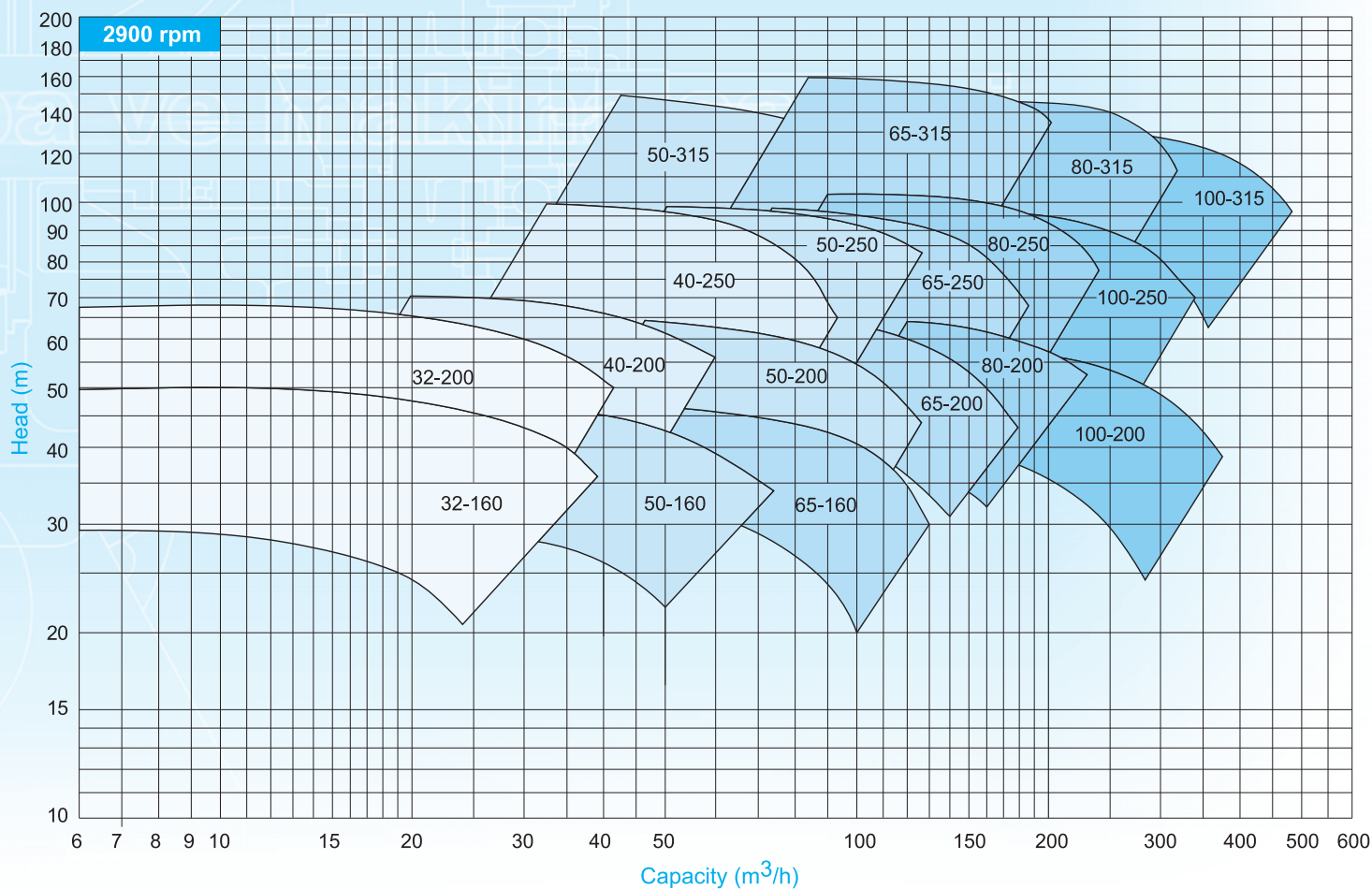
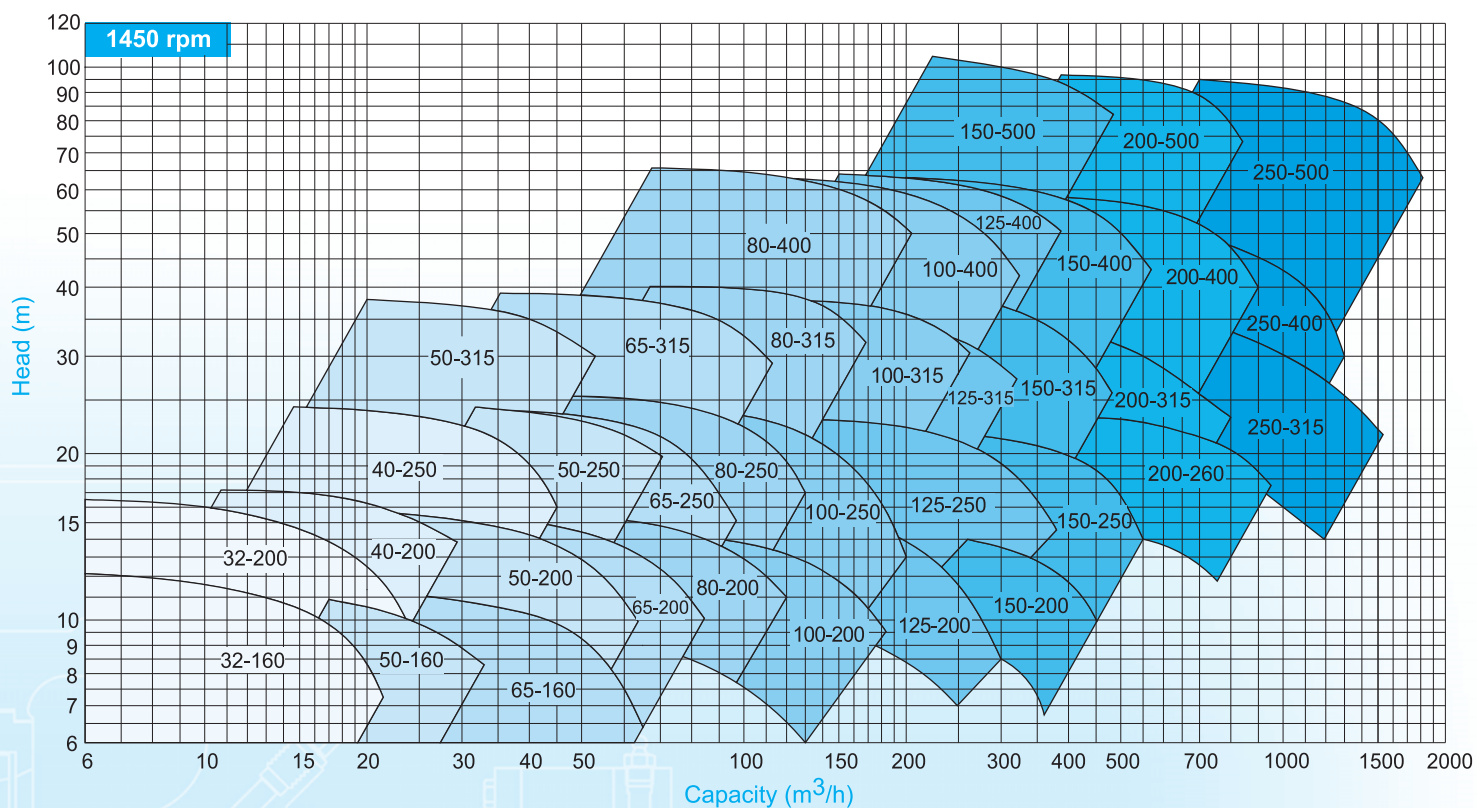
## Direction of Rotation

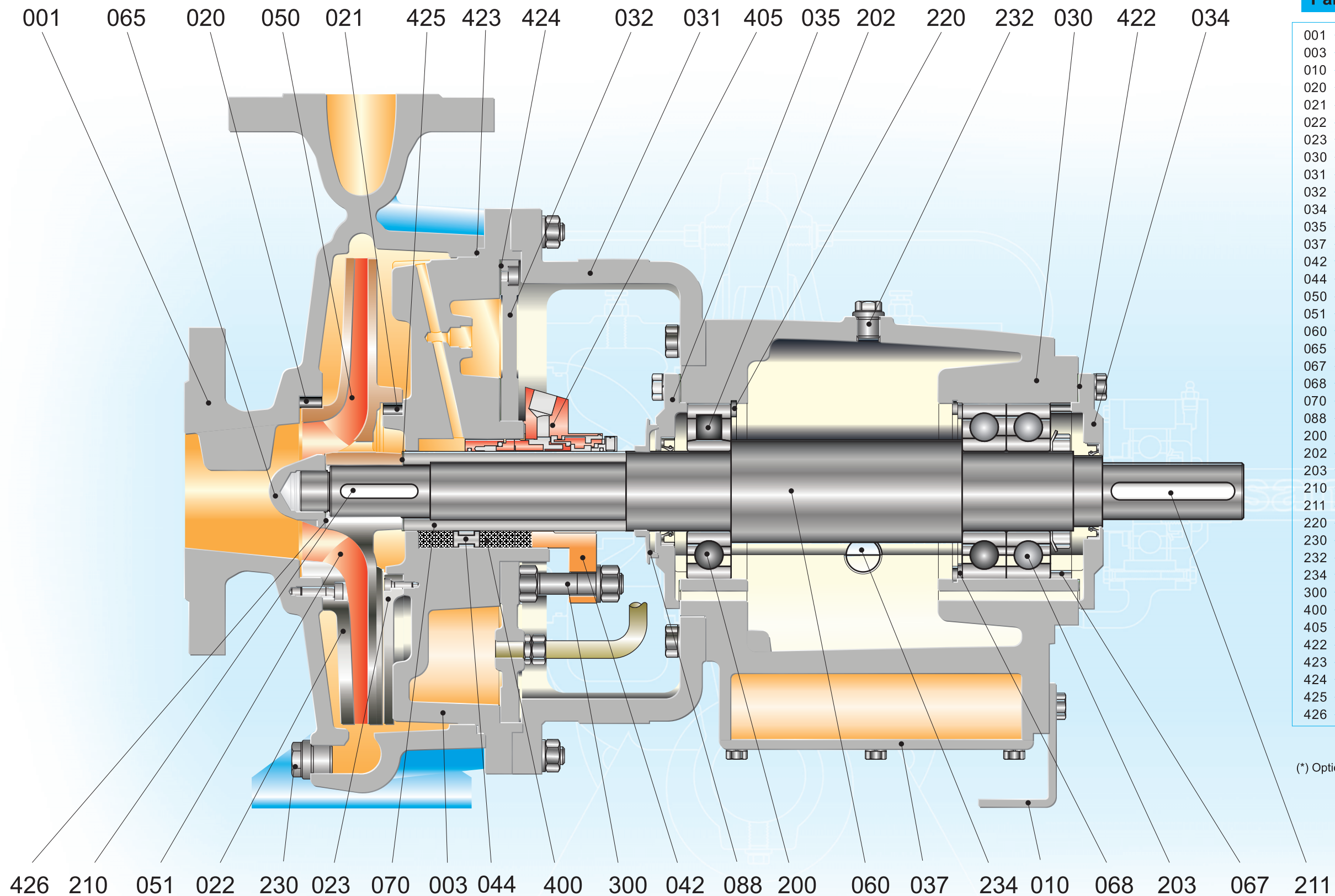
- The direction of rotation is clockwise (CW) viewed from the driver end.

## Pump Designation

**SCP 125 - 315 X**

Pump Type \_\_\_\_\_  
 Discharge Nozzle (DN) \_\_\_\_\_  
 Nominal Impeller Diameter (mm) \_\_\_\_\_  
 Impeller Type (A: semi-open) \_\_\_\_\_



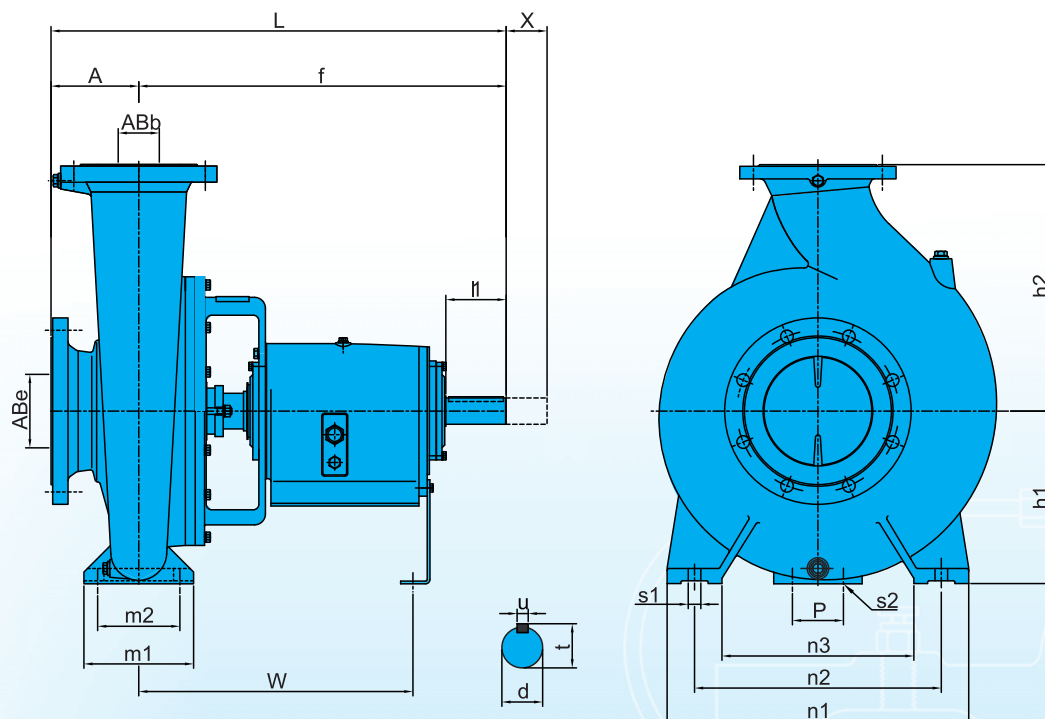


## Part List

|     |                                               |
|-----|-----------------------------------------------|
| 001 | Volute Casing                                 |
| 003 | Casing Cover                                  |
| 010 | Support Foot                                  |
| 020 | Wear Ring (casing)                            |
| 021 | Wear Ring (casing cover)                      |
| 022 | Wear Plate (front: semi-open) *               |
| 023 | Wear Plate (back: semi-open) *                |
| 030 | Bearing Bracket                               |
| 031 | Bearing Bracket Lantern                       |
| 032 | Cover (cooling/heating for sealing chamber) * |
| 034 | Bearing Cover (drive side)                    |
| 035 | Bearing Cover (pump side)                     |
| 037 | Cover (bearing cooling chamber) *             |
| 042 | Stuffing Box Gland                            |
| 044 | Lantern Ring                                  |
| 050 | Impeller (closed)                             |
| 051 | Impeller (semi-open) *                        |
| 060 | Shaft                                         |
| 065 | Impeller Nut                                  |
| 067 | Spacer Ring (bearing)                         |
| 068 | Spacer Ring (bearing)                         |
| 070 | Shaft Sleeve                                  |
| 088 | Thrower                                       |
| 200 | Ball Bearing                                  |
| 202 | Cylindrical Roller Bearing                    |
| 203 | Angular Contact Ball Bearing                  |
| 210 | Key (impeller)                                |
| 211 | Key (coupling)                                |
| 220 | Circlip                                       |
| 230 | Draing Plug                                   |
| 232 | Oil Filling                                   |
| 234 | Oil Sight Gauge                               |
| 300 | Stud & Nut                                    |
| 400 | Stuffing Box Packing                          |
| 405 | Mechanical Seal *                             |
| 422 | Gasket                                        |
| 423 | Gasket                                        |
| 424 | Gasket                                        |
| 425 | Gasket                                        |
| 426 | Gasket                                        |

(\*) Optional :Depending on customer requirement or request





| Pump Type | DIMENSIONS (mm)    |     |     |     |     |      |     |                           |     |     |     |     |     |     |     |      |     |           |      |     |     |       |     |     |     |     |     |     |
|-----------|--------------------|-----|-----|-----|-----|------|-----|---------------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----------|------|-----|-----|-------|-----|-----|-----|-----|-----|-----|
|           | Overall Dimensions |     |     |     |     |      |     | Support & Feet Dimensions |     |     |     |     |     |     |     |      |     | Shaft End |      |     |     | Space |     |     |     |     |     |     |
|           | ABe                | ABb | A   | f   | L   | h1   | h2  | m1                        | m2  | n1  | n2  | n3  | s1  | p   | s2  | w    | d   | l1        | t    | u   | x   |       |     |     |     |     |     |     |
| 32-160    | 50                 | 32  | 80  | 385 | 465 | 132  | 160 | 100                       | 70  | 240 | 190 | 140 | 14  | 110 | 14  | 285  | 24  | 50        | 27   | 8   | 100 |       |     |     |     |     |     |     |
| 32-200    |                    |     |     |     |     | 160  | 180 |                           |     |     |     |     |     |     |     |      |     |           |      |     |     |       |     |     |     |     |     |     |
| 40-200    | 65                 | 40  | 100 | 385 | 485 | 160  | 180 | 100                       | 70  | 265 | 212 | 165 | 14  | 110 | 14  | 285  | 24  | 50        | 27   | 8   | 100 |       |     |     |     |     |     |     |
| 40-250    |                    |     |     |     |     | 500  | 600 |                           |     |     |     |     |     |     |     |      |     |           |      |     |     | 180   | 225 | 125 | 95  | 320 | 250 | 190 |
| 50-160    | 80                 | 50  | 100 | 385 | 485 | 160  | 180 | 100                       | 70  | 265 | 212 | 165 | 14  | 110 | 14  | 285  | 24  | 50        | 27   | 8   | 100 |       |     |     |     |     |     |     |
| 50-200    |                    |     |     |     |     | 200  |     |                           |     |     |     |     |     |     |     |      |     |           |      |     |     |       |     |     |     |     |     |     |
| 50-250    |                    |     |     |     |     | 180  | 225 |                           |     |     |     |     |     |     |     |      |     |           |      |     |     |       |     |     |     |     |     |     |
| 50-315    |                    |     |     |     |     | 225  | 280 |                           |     |     |     |     |     |     |     |      |     |           |      |     |     |       |     |     |     |     |     |     |
| 65-160    | 100                | 65  | 100 | 500 | 600 | 160  | 200 | 125                       | 95  | 280 | 212 | 150 | 14  | 110 | 14  | 370  | 32  | 80        | 35   | 10  | 140 |       |     |     |     |     |     |     |
| 65-200    |                    |     |     |     |     | 180  | 225 |                           |     | 320 | 250 | 190 |     |     |     |      |     |           |      |     |     |       |     |     |     |     |     |     |
| 65-250    |                    |     | 125 | 530 | 655 | 225  | 280 | 160                       | 120 | 400 | 315 | 240 | 19  |     |     |      |     |           |      |     |     |       |     |     |     |     |     |     |
| 65-315    |                    |     |     |     |     |      |     |                           |     |     |     |     |     |     |     |      |     |           |      |     |     | 280   | 250 | 200 |     |     |     |     |
| 80-200    | 125                | 80  | 125 | 500 | 625 | 180  | 250 | 125                       | 95  | 345 | 280 | 215 | 14  | 110 | 14  | 370  | 32  | 80        | 35   | 10  | 140 |       |     |     |     |     |     |     |
| 80-250    |                    |     |     |     |     | 225  | 280 |                           |     | 400 | 315 | 240 |     |     |     |      |     |           |      |     |     | 19    |     |     |     |     |     |     |
| 80-315    |                    |     |     | 530 | 655 | 250  | 315 | 160                       | 120 | 435 | 355 | 275 | 42  |     |     |      |     |           |      |     |     | 110   | 45  | 12  |     |     |     |     |
| 80-400    |                    |     |     |     |     |      |     |                           |     |     |     |     |     |     |     |      |     |           |      |     |     |       |     |     | 280 | 355 |     |     |
| 100-200   | 125                | 100 | 125 | 500 | 625 | 200  | 280 | 160                       | 120 | 360 | 280 | 200 | 19  | 110 | 14  | 370  | 32  | 80        | 35   | 10  | 140 |       |     |     |     |     |     |     |
| 100-250   |                    |     |     |     |     | 225  | 315 |                           |     | 400 | 315 | 240 |     |     |     |      |     |           |      |     |     | 19    |     |     |     |     |     |     |
| 100-315   |                    |     | 140 | 530 | 670 | 250  | 315 | 200                       | 150 | 500 | 400 | 300 | 23  |     |     |      |     |           |      |     |     |       |     |     |     |     |     |     |
| 100-400   |                    |     |     |     |     |      |     |                           |     |     |     |     |     |     |     |      |     |           |      |     |     | 280   | 355 |     |     |     |     |     |
| 125-200   | 150                | 125 | 140 | 500 | 640 | 250  | 315 | 160                       | 120 | 400 | 315 | 240 | 19  | 110 | 14  | 370  | 32  | 80        | 35   | 10  | 140 |       |     |     |     |     |     |     |
| 125-250   |                    |     |     |     |     | 280  | 355 |                           |     | 400 | 315 | 240 |     |     |     |      |     |           |      |     |     | 19    |     |     |     |     |     |     |
| 125-315   |                    |     |     | 530 | 670 | 280  | 315 | 200                       | 150 | 500 | 400 | 300 | 23  |     |     |      |     |           |      |     |     |       |     |     |     |     |     |     |
| 125-400   |                    |     |     |     |     |      |     |                           |     |     |     |     |     |     |     |      |     |           |      |     |     | 315   | 400 |     |     |     |     |     |
| 150-200   | 200                | 150 | 160 | 545 | 705 | 280  | 355 | 200                       | 150 | 550 | 450 | 350 | 23  | 140 | 14  | 381  | 42  | 110       | 45   | 10  | 180 |       |     |     |     |     |     |     |
| 150-250   |                    |     |     | 530 | 690 | 375  | 400 |                           |     |     |     |     |     |     |     | 12   |     |           |      |     |     |       |     |     |     |     |     |     |
| 150-315   |                    |     |     | 670 | 830 | 315  | 450 |                           |     |     |     |     |     |     | 250 | 200  |     |           |      | 720 |     | 600   | 435 | 27  | 19  | 500 | 48  | 14  |
| 150-400   |                    |     |     |     |     |      |     |                           |     |     |     |     |     |     |     |      |     |           |      |     |     |       |     |     |     | 200 | 730 | 930 |
| 150-500   | 250                | 200 | 200 | 684 | 884 | 355  | 450 | 250                       | 200 | 600 | 500 | 360 | 23  | 140 | 20  | 495  | 55  | 110       | 51.5 | 16  | 140 |       |     |     |     |     |     |     |
| 200-260   |                    |     |     |     |     |      |     |                           |     |     |     |     |     |     |     | 51.5 | 14  |           |      |     |     |       |     |     |     |     |     |     |
| 200-315   |                    |     |     | 180 | 725 | 905  | 400 | 525                       | 300 | 240 | 720 | 600 | 435 |     |     | 27   | 520 |           | 48   | 59  |     | 16    |     |     |     |     |     |     |
| 200-400   |                    |     |     |     |     |      |     |                           |     |     |     |     |     |     |     |      | 490 |           | 55   | 59  |     | 16    |     |     |     |     |     |     |
| 200-500   | 300                | 250 | 230 | 730 | 960 | 400  | 525 | 300                       | 240 | 720 | 600 | 435 | 27  | 140 | 20  | 640  | 70  | 140       | 74.5 | 20  | 200 |       |     |     |     |     |     |     |
| 250-315   |                    |     |     |     |     |      |     |                           |     |     |     |     |     |     |     | 750  | 980 | 74.5      | 20   |     |     |       |     |     |     |     |     |     |
| 250-400   |                    |     |     | 225 | 940 | 1165 | 450 | 630                       |     |     |     |     |     |     |     |      |     |           |      |     |     |       |     |     |     |     |     |     |
| 250-500   |                    |     |     |     |     |      |     |                           |     |     |     |     |     |     |     |      |     |           |      |     |     |       |     |     |     |     |     |     |

## Material Options

| Parts List              | 0.6025 | 0.7040 | 1.0619 | 1.4308 | 1.4408 | 1.4409 | 1.4517 | 1.4469 | 2.1050.01 | 1.0501 | 1.0503 | 1.4021 | 1.4301 | 1.4306 | 1.4401 | 1.4404 | 1.4462 |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| Volute casing           | ○      | ●      | ○      | ○      | ○      | ○      | ○      | ○      | ○         |        |        |        |        |        |        |        |        |
| Stuffing box cover      | ○      | ●      | ○      | ○      | ○      | ○      | ○      | ○      | ○         |        |        |        |        |        |        |        |        |
| Impeller                | ○      | ●      | ○      | ○      | ○      | ○      | ○      | ○      | ○         |        |        |        |        |        |        |        |        |
| Shaft                   |        |        |        |        |        |        |        |        |           | ○      | ○      | ●      | ○      | ○      | ○      | ○      | ○      |
| Bearing housing         | ●      |        |        |        |        |        |        |        |           |        |        |        |        |        |        |        |        |
| Wear ring (Casing )     | ○      | ●      | ○      | ○      | ○      | ○      | ○      | ○      | ○         |        |        |        |        |        |        |        |        |
| Wear plate              | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○         |        |        |        |        |        |        |        |        |
| Shaft protecting sleeve |        |        |        |        |        |        |        |        |           | ○      | ○      | ●      | ○      | ○      | ○      | ○      | ○      |
| Mechanical seal (*)     |        |        |        |        |        |        |        |        |           |        |        |        |        |        |        |        |        |
| EN 12756 / DIN 24960    |        |        |        |        |        |        |        |        |           |        |        |        |        |        |        |        |        |

(\*) Optional :Depending on customer requirement or request different types and brands of mechanical seals are applicable.

● Standard manufacturing

○ Optional

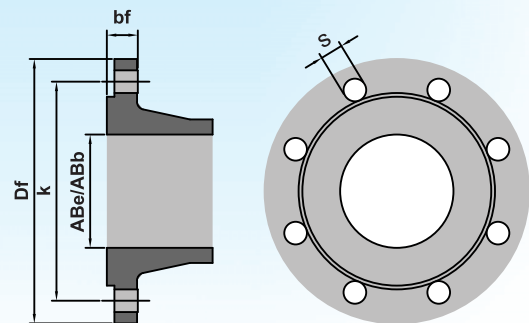
## Material Equivalents

| Description                                      | DIN 17007 | EN-DIN                      | ASTM                   |
|--------------------------------------------------|-----------|-----------------------------|------------------------|
| Cast iron                                        | 0.6025    | GJL-250 (GG 25)             | A 48 Class 40-B        |
| Nodular cast iron                                | 0.7040    | GJS-400-15 (GGG 40)         | A 536 Gr. 60-40-18     |
| Cast steel                                       | 1.0619    | GP240GH (GS-C 25)           | A 216 Gr. WCB          |
| Chrome nickel cast steel                         | 1.4308    | G-X5 Cr Ni 19-10            | A 351/743/744 Gr. CF8  |
| Chrome nickel molybdenum cast steel              | 1.4408    | G-X5 Cr Ni Mo 19-11-2       | A 351/743/744 Gr. CF8M |
| Chrome nickel molybdenum cast steel (low carbon) | 1.4409    | G-X2 Cr Ni Mo 19-11-2       | A 351/743/744 CF3M     |
| Austenitic-ferritic cast steel (duplex)          | 1.4517    | G-X2 Cr Ni Mo Cu N 25-6-3-3 | A 890 Gr. 1B (CD4MCuN) |
| Austenitic-ferritic cast steel (super duplex)    | 1.4469    | G-X2 Cr Ni Mo N 26-7-4      | A 890 Gr. 5A (CE3MN)   |
| Cast bronze                                      | 2.1050.01 | G-Cu Sn 10                  | B 584 C 90700          |
| Carbon steel                                     | 1.0501    | C 35                        | A 29/108/576 1035      |
| Carbon steel                                     | 1.0503    | C 45                        | A 29/108/576 1045      |
| Chrome steel                                     | 1.4021    | X20 Cr 13                   | A 276 Type 420         |
| Chrome nickel steel                              | 1.4301    | X5 Cr Ni 18-10              | A 276 Type 304         |
| Chrome nickel steel (low carbon)                 | 1.4306    | X2 Cr Ni 19-11              | A 276 Type 304L        |
| Chrome nickel molybdenum steel                   | 1.4401    | X5 Cr Ni Mo 17-12-2         | A 276 Type 316         |
| Chrome nickel molybdenum steel (low carbon)      | 1.4404    | X2 Cr Ni Mo 17-12-2         | A 276 Type 316 L       |
| Duplex (austenitic-ferritic) steel               | 1.4462    | X2 Cr Ni Mo N 22-5-3        | A 276 (S 32205)        |

## Flange Dimensions

| Pump Type | Suction (PN 16) |     |     |    |    |    | Discharge (PN 16) |     |     |    |    |    |
|-----------|-----------------|-----|-----|----|----|----|-------------------|-----|-----|----|----|----|
|           | ABe             | Df  | k   | s  | n  | bf | ABb               | Df  | k   | s  | n  | bf |
| 32        | 50              | 165 | 125 | 19 | 4  | 20 | 32                | 140 | 100 | 19 | 4  | 18 |
| 40        | 65              | 185 | 145 | 19 | 4  | 20 | 40                | 150 | 110 | 19 | 4  | 18 |
| 50        | 80              | 200 | 160 | 19 | 8  | 22 | 50                | 165 | 125 | 19 | 4  | 20 |
| 65        | 100             | 220 | 180 | 19 | 8  | 24 | 65                | 185 | 145 | 19 | 4  | 20 |
| 80        | 125             | 250 | 210 | 19 | 8  | 26 | 80                | 200 | 160 | 19 | 8  | 22 |
| 100       | 125             | 250 | 210 | 19 | 8  | 26 | 100               | 220 | 180 | 19 | 8  | 24 |
| 125       | 150             | 285 | 240 | 19 | 8  | 26 | 125               | 250 | 210 | 19 | 8  | 26 |
| 150       | 200             | 340 | 295 | 23 | 12 | 30 | 150               | 285 | 240 | 23 | 8  | 26 |
| 200       | 250             | 405 | 355 | 23 | 12 | 32 | 200               | 340 | 295 | 23 | 12 | 30 |
| 250       | 300             | 460 | 410 | 28 | 12 | 32 | 250               | 405 | 355 | 28 | 12 | 32 |

"n" number of holes





**Standard**  
POMPA ve MAKİNA SANAYİ TİC. AŞ.

[www.standartpompa.com](http://www.standartpompa.com) / e-mail: [info@standartpompa.com.tr](mailto:info@standartpompa.com.tr)

Factory - Center

İdos Organize Sanayi Bölgesi  
2.Cad No:9 34775  
İstanbul - TÜRKİYE  
Pbx: +90 216 466 89 00  
Fax: +90 216 415 88 60